

## Claims (new)

1. Method for packeting time-synchronous data during a transmission in a packet data network,
  - whereby several time-synchronous links (1..5) exist in the packet data network and
  - whereby data packets of a link (1..5) are sent with the spacing of a period duration (TP) in a recurrent manner, characterized in that
    - the start of data transmission of a link (1..5) is selected such that the data packets of the different links (1..5) are as evenly distributed as possible in relation to time (t),
    - a time interval corresponding to the period duration (TP) is divided into a number of equally sized time slots corresponding to the number of possible links (1..10),
    - a time slot is permanently assigned to each possible link (1..10) and
    - when setting up a new link (N) the start of data transmission is selected such that a new data packet is inserted into the time slot corresponding to this link (N),
    - several different packeting times (TPA1, TPA2, TPA3) are used in a system and
    - the largest common divisor of all packeting times (TPA1, TPA2, TPA3) is selected as the period duration (TP).
2. Method according to claim 1, characterized in that
  - when setting up a new link (N) the time spacings between the data packets of the different links (1..5) are evaluated within a time interval corresponding to the period duration (TP) and

- the start of data transmission of the new link (N) is selected such that a new data packet is inserted into the largest time gap between the already existing data packets.
3. Method according to claim 2, characterized in that the gap is divided into two equally sized parts.
4. Method according to claim 2 or 3, characterized in that
- a time interval corresponding to the period duration (TP) is divided into a number of equally sized time slots corresponding to the number of possible links (1..10) and
  - when setting up a new link (N) the start time of data transmission is rounded such that a new data packet is inserted into a time slot.
5. Method according to one of the claims 2 to 4, characterized in that
- several different packeting times (TPA1, TPA2, TPA3) are used in a system,
  - the largest common divisor of all packeting times (TPA1, TPA2, TPA3) is selected as the period duration (TP) and
  - when evaluating the time spacings between the data packets of the different links (1..3) within a time interval corresponding to the period duration (TP), account is also taken of those links (2..3) to which no data packet is being transmitted in the time interval under consideration.
6. Device for packeting time-synchronous data in a packet data network, comprising
- means for packeting several time-synchronous links (1..5) and

- means for periodically recurrent sending of data packets of a link (1..5) with the spacing of a period duration (TP),

characterized in that the device additionally comprises

- means for starting the data transmission of a link (1..5) such that the data packets of the different links (1..5) are as evenly distributed as possible in relation to time (t),
  - means for dividing a time interval corresponding to the period duration (TP) into a number of equally sized time slots corresponding to the number of possible links (1..10),
  - means for the permanent assignment of each possible link (1..10) to a time slot and
  - means for starting data transmission of a new link (N) such that a new data packet is inserted into the time slot corresponding to this link (N).
7. Device according to claim 6, comprising
- means for evaluating the time spacings between the data packets of the different links (1..5) within a time interval corresponding to the period duration (TP) and
  - means for starting data transmission of a new link (N) such that a new data packet is inserted into the largest time gap between the already existing data packets.